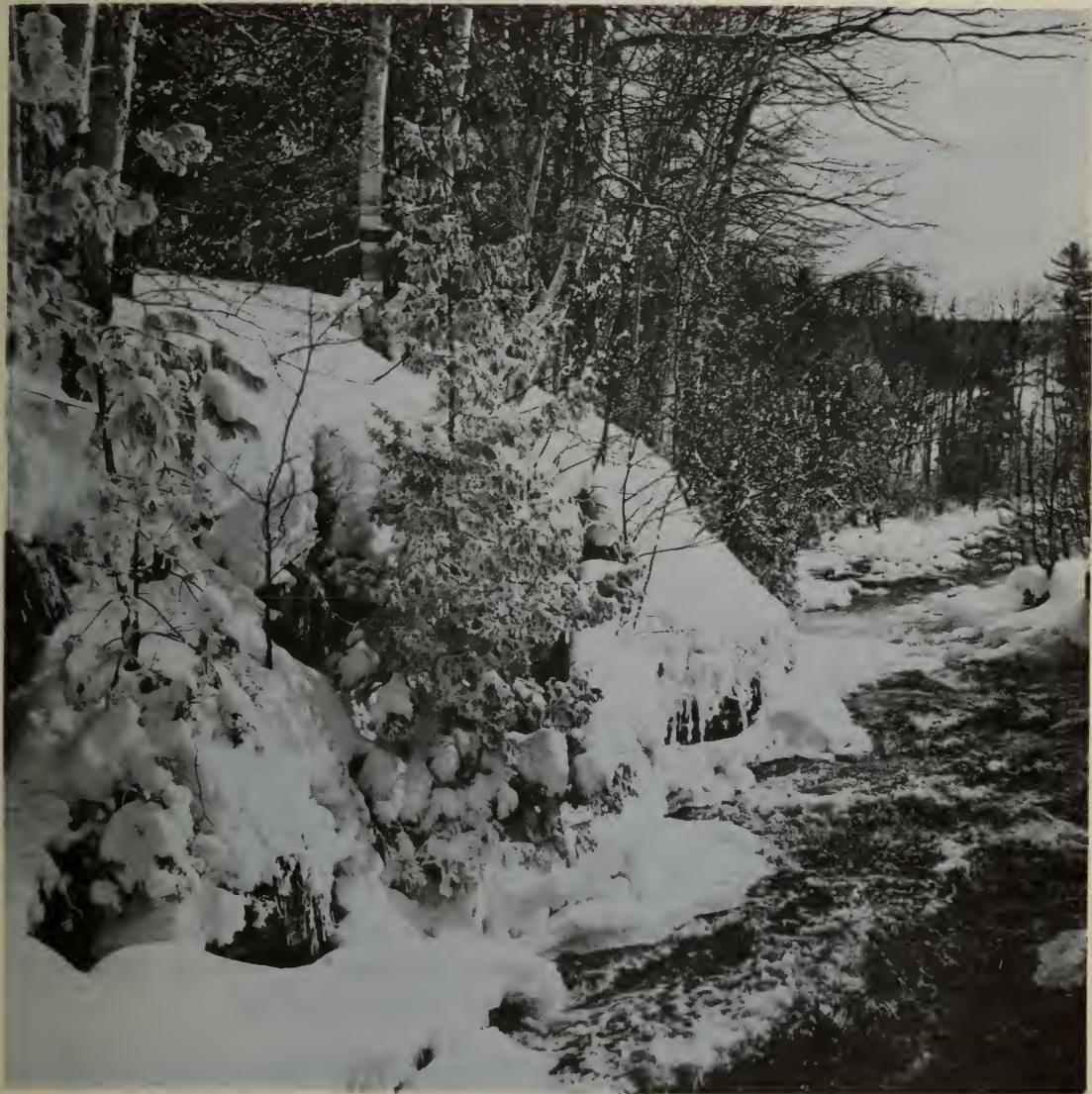


ONTARIO FISH AND WILDLIFE REVIEW

Volume 3, No. 1

Spring, 1964



ONTARIO

DEPARTMENT OF LANDS AND FORESTS

HON. A. KELSO ROBERTS, Q.C., MINISTER

F. A. MACDOUGALL, DEPUTY MINISTER

ONTARIO FISH AND WILDLIFE REVIEW

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CONTENTS	PAGE
Walleye Management in Ontario <i>by G. C. Armstrong</i>	2
Animal Life in the City <i>by J. S. "Sandy" Ellis</i>	5
Fish Better---Electrically <i>by Murray G. Johnson</i>	9
Let's Hunt Pheasants <i>by J. D. Roseborough</i>	13
Wildlife Letter Box <i>by C. H. D. Clarke</i>	20

THE COVER

Our cover picture shows the beauty of a stream in early spring near Buttermilk Falls in the Haliburton Highlands. Staff Photo. The back cover shot by Ted Jenkins shows a nine-pound walleye taken in the Bay of Quinte last May.

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EDITORIAL

Biological Management and Public Attitudes

Sociological attitudes play an important role in the management of the sport fishery in Ontario. For example, during the past decade the trend towards more liberalized regulations for sport fishing has provided the opportunity for greater utilization of the resource. These changes, which are biologically sound and desirable from the point of view of management, are not always completely acceptable to all of the angling public. The real enthusiast is usually favourably impressed but other less ardent anglers are often skeptical for one reason or another. The well informed fisherman welcomes the change in regulations and the opportunity for extended fishing privileges while the more casual angler may be prone to a more selfish attitude, often attributed to some ulterior, personal interest.

The primary objective in fisheries management, as in the administration of any of our natural, renewable resources, is for optimum use for maximum benefit by the largest number of people possible. This concept of fisheries management is generally accepted, but the mechanics of its implementation are not always as clearly understood. For example, how many anglers stop to consider the impact of sociological attitudes? How many fishermen take the time to inquire into a management procedure before responding? Or, how many consider and recognize the rights of others, whether it be a fellow angler from near or far, or a landowner wishing to protect his private property? These and other considerations are all part and parcel of the sociological attitudes which can and do influence the success of management and the wise use of our valuable fisheries resource.

WALLEYE MANAGEMENT IN ONTARIO

by G.C. Armstrong

Supervisor, Game Fish and Hatchery Section

The walleye, or pickerel as it is more commonly called in Ontario, is probably the most popular and the most important sport fish in the Province. It is eagerly sought by most anglers. The species is not known particularly for its fighting quality, as is the small-mouth bass or the rainbow or brook trout, but it more than makes up for any deficiency in this category by its wide distribution and relative abundance, its large average size and its interest in anglers' lures through most of the fishing season. It is also renowned for its excellence as a food fish, a tribute not equalled by other freshwater sport fish.

Historically, the management of the walleye in Ontario has been largely confined to controlling the harvest by regulation (i.e., size limit, creel limit and closed seasons) and to the propagation and planting of hatchery-reared, eyed eggs and fry. More recently, however, the emphasis has shifted and, during the past decade, increased attention has been given to the investigation and study of the fishery. As a result, regulatory controls have been relaxed and the restocking programme has been greatly reduced.

The increased attention given to the investigation of the walleye is indicated by the variety of projects currently in progress in various areas of the Province. Population and life history studies are being conducted on the Bay of Quinte of Lake Ontario and in the western part of Lake Erie by the Research Branch of the Department of Lands and Forests. Investigations, conducted by the Fish

and Wildlife Branch, are also in progress in the Kemptville, Tweed, Parry Sound, Sault Ste. Marie and Fort Frances areas. Two new fishery management units have been established for the Kawartha Lakes area and for Lake of the Woods, and both of these units are particularly concerned with the study of the walleye. Creel census studies are also being conducted extensively throughout most of the 22 forest districts to provide additional, pertinent information on the status of fishing conditions and fishing success.

Recent changes in the Ontario Fishery Regulations have removed some of the restrictive controls on angling for walleye. These changes have improved fishing conditions in most areas. The elimination of the size limit (15 inch total length) in 1955 permitted the harvest of small, slower growing populations of fish, such as those found in Three Mile Lake in the Parry Sound District, and it has increased the potential utilization of the younger year classes which, otherwise, would normally be subjected to rather severe losses from natural mortality. The lengthening of the open season for walleye in southern Ontario from December 31 to March 31 in 1960 also provided the opportunity for increased utilization of the available fish stocks and for the extension of the recreational season.

The propagation and planting of walleye eggs and fry has been greatly curtailed in Ontario in recent years. During the past decade, five jar-type hatcheries located at Sarnia, Fort Frances, Collingwood, Kenora and

Kingsville were closed. These operations were terminated mainly because of the lack of any evidence to show that the plantings of hatchery-reared, eyed eggs and fry were making any significant contribution in waters where walleye were already established. All of the evidence available in Ontario and from other agencies in Canada and the United States points to the fact that "maintenance" plantings, particularly, at the rate normally used in stocking inland waters in Ontario (i.e. 500,000 eyed eggs or fry per lake) were of no practical value. Planting rates in the order of 5,000 to 10,000 walleye fry per surface acre of lake water have been correlated with an increase in the population of the same year class, but these planting rates are far beyond any practical limit available.

Walleye are known to be prolific spawners and, given a suitable environment and the proper climatic conditions, they are capable of maintaining their populations at carrying capacity. Numerous records are available on the fecundity of the walleye which illustrate

the tremendous reproductive potential of these fish. Reports show that the range in egg production varies from 13,000 to 45,000 eggs per pound of fish with the average being about 26,000 eggs per pound. Egg counts taken during spawn collecting operations conducted by the Department on Hay Bay (Bay of Quinte) in 1963 averaged about 21,500 eggs per pound of fish, or about 125,000 eggs per fish spawned. There is little doubt, therefore, that the walleye is capable of adequate spawn production naturally if other conditions related to spawning success are satisfactory.

Climatic conditions and other environmental factors are obviously of paramount importance to the successful production and recruitment of walleye. All available information indicates that the early stages of development from the egg through to the fry stage is the most critical period of the life history. Many factors, such as spawning grounds, water levels, water quality and water temperatures, are known to influence spawning success, but the detail and relationship of these are not always



Hatchery jars used for the incubation of walleye eggs. Staff photo.

clearly understood. It is apparent, however, that fluctuations in year class strength, which do occur regularly from year to year and which ultimately affect fishing success, are related directly to suitability of conditions during the early stages of development of the walleye rather than any inability on the part of the fish to sustain production.

Although hatchery production and plantings of walleye have been greatly reduced in Ontario, the Department operates one jar-type station and one pond station for the culture of walleye. The jar hatchery, which is located at Little Current, Manitoulin Island, is maintained primarily for the supply of stock for introductory plantings. The pond station at White Lake is currently used mainly for the experimental pond culture of walleye fingerlings. The stock produced from this operation is also used experimentally in an effort to determine the rate of survival from the planting of hatchery-reared walleye fingerlings in various lakes exhibiting different environmental conditions.

The results from these operations are not complete although the pond culture of walleye fingerlings has proven to be quite successful. During the past year, approximately 217,000 finger-

ling-size fish, measuring between 30 to 90 mm. (approx. 1 to 3½ inches) in length, were produced at an average cost of 0.8 cents per fish.

No specific data are available on the results from the plantings of walleye fingerlings. Initial attempts at assessment with the use of trap nets were unsuccessful since this method of sampling was found to be ineffective for the collection of small walleye in the lakes examined.

The future of walleye fingerling culture in Ontario is, therefore, not known at the present time. The Department is interested in the development of a pond culture programme if the results from the current studies are favourable and if it can be shown that the production and planting of walleye fingerlings are economically feasible. However, current plans for the management of the walleye in Ontario are being directed towards studies on the life history of the species, particularly through the early stages of development, in an effort to determine the factors affecting fry survival. With this information at hand, we would hope to be in a much better position to develop and maintain this valuable fishery at the highest possible level.



White Lake pond station, used mainly for experimental pond culture of walleye fingerlings. Photo by T. Jenkins.

ANIMAL LIFE IN THE CITY

by J.S. "Sandy" Ellis

Assistant Senior Conservation Officer, Lake Simcoe Forest District

To many persons it may be a revelation to learn that there is an abundant wildlife population within the boundaries of Metropolitan Toronto. These animals live happy, normal lives. Furthermore, they appear to be organized into unions for their mutual benefit and protection. They are familiar with the general alarm system, areas designated as out-of-bounds and their positional role within their Order.

All forms of wildlife have a definite means of communication and their minds are very active. They brag, gossip, joke and laugh. They certainly have reason to laugh because of the ease with which they can hoodwink and beguile human beings. In fact, they make chumps of city home-owners.

A creature reared in the backwoods may appear unsophisticated but he is sly and cunning and a master of his destiny in the surroundings familiar to him. When he migrates to metropolitan areas, he quickly adapts himself to city life. Within a short time, he realizes the advantages afforded him by "No Discharge of Firearms" and "Do Not be Cruel to Animals" In the wilds, he had numerous predators to fear but now he has only two--the very young hunter with a hard-hitting pellet gun and the common house cat. Whether pampered pets or tough alley cats, the felines are killers of our birds and small animals.

To assess the role of wild creatures in community life is difficult. To some persons, they are cute and lovable pets, and their friendship is enjoyed.

To others, they are nasty, disease carriers and a "danged" nuisance. To still others, they are destructive pests that damage property. Regardless of these opinions, city-dwelling wildlife continue to thrive and thumb their little pink noses at both their benefactors and their persecutors. They scrounge their living and appear to know where to draw the line when a human reaches the limit of his patience and decides on reprisal action. They have little compunction in irritating people but they can ingratiate themselves very cleverly for their own selfish purposes. In order of their population density in Metropolitan Toronto, here is our cast of characters.

*Black Squirrel et al.....*An agile, perky individual, very proud of his flowing plume tail. Adept at working his way into the good graces of kind and unsuspecting citizens (purely for his own advantage). He is cunning, sly and a natural extrovert. A food scrounger deluxe and a robber of birds' nests. Delights in chewing holes in roof tops to annoy the owner. Quite a guy for holding all-night barn dances in the attic, using rolling nuts for drums. Appears to play all night and be on the move all day. Observes traffic lights, uses cross walks and always looks both ways before crossing the street. Also uses overhead cable systems as alternate travel routes.

*Raccoon.....*Famed for his impudence, this sagacious animal is unhurried and deliberate in his actions, and his life is well organized. He is



The black squirrel, a perky urbanite, enjoys city life. Photo by E.G. Hunter.

often seen in deep sleep on tree crotches or roof tops but he becomes more active after sunset when his presence is made known by the rattle of garbage-can lids and the clatter of upset garbage-pails. A positive identification is the unsightly mess of scattered refuse on the backstep at sunrise. The raccoon has discovered that city life is a cinch and has moved in with the family to occupy the warm spot in the chimney or the boxed-in alcove. He finds it more convenient to sleep through the winter than to hustle for food.

Cottontail Rabbit.....Cute, harmless and clean. Enjoyed by most folks during the spring and summer. Pampered by many. Little bunnies are irresistible--except in fall and winter when they are chased, stoned and sworn at for barking trees and shrubs and destroying landscaping plants.

Skunk.....Fat, lazy and contented with his lot in life. Complacent and

confident with little else in his head. Mostly a night traveller but often strolls in the day time. Capable of defence under all circumstances. Very fastidious and clean---and no odour! When mistaken for a kitten and petted by animal lovers.....they do smell!

Fur-bearers.....Other animals in the Great City are the fur-bearers, such as mink, muskrat and weasel, and an occasional beaver. They are secretive and shy and remain in concealment near waterways. Several trappers add to their income by trapping them for their fur, thus containing their population within the bounds of the food supply.

White-tailed Deer.....Although this article deals principally with the smaller mammals and birds, we cannot neglect to mention the deer population. This large game animal appears envious of its smaller city relatives and probably would enjoy moving in with them but it cannot do so until a truce is arranged



Speaking of urban hospitality, the skunk is a satisfied customer. Staff photo.



The raccoon finds city life a cinch. Photo by R. Muckleston.



White-tailed deer appear on golf courses and airfields and even on lawns in the early morning; they continue to thrive in built-up areas. Photo by G.H.R. Phillips.

with the city dogs. However, small family groups are present in the Don and Humber River valleys and golf courses are considered as safe loafing grounds. They are not so welcome on airfields and runways, and conservation officers have been called on several occasions to remove this hazard to modern air travel. A few years ago, a large elk decided to leave for the U.S.A. and passed through Toronto to Lake Ontario where it was drowned several miles off-shore.

*Birds.....*The many large and stately trees and the shrubs create a natural habitat for bird life. The robin, cardinal, wren, oriole and song sparrow may be seen and heard at any time, but the

morning chorus is a treat for early risers.

*Waterfowl.....*Abundant along the waterfront and on inland creeks and ponds. All appear to be appreciated by the citizens who have provided many feeding stations and other favours for them. Waterfowl and wading birds are accustomed to so much attention and protection that they have taken out naturalization papers.

We are sure that the citizens of Toronto have observed many incidents whereof we write and are aware that our furred and feathered friends have added a touch of warmth and friendship to a great city.

FISH BETTER---ELECTRICALLY

by Murray G. Johnson

Metropolitan Toronto and Region Conservation Authority
(Photos by the Author)

Several reservoirs will be constructed on streams in the Toronto region in the next few years. In order to investigate the effects that these impoundments might have on fish life, information on the species composition and size of the fish populations is essential. Such data are required both for management of the stream fisheries and the fisheries to be developed in reservoirs. Therefore, the species composition and standing crops of fish in sections of the Humber, Don and Rouge Rivers and Duffin Creek were estimated. Electrofishing gear proved invaluable in completing the study.

In 1961, ten stream sections were selected for study; each was approximately 500 feet in length. Seine nets were used to block each end. Two or three trips were made over each section by a three-man crew using electrofishing gear to collect as many fish as possible. The effort made on each successive trip was kept uniform since population estimates were to be made on the basis of diminishing catch.

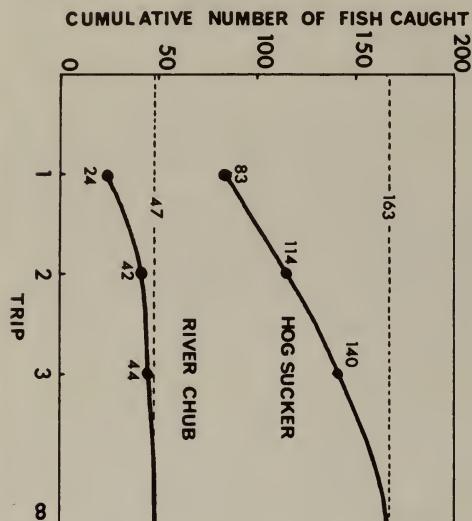
The generator, which was stationed on the streambank, produced a direct current with a potential of 110 volts. The current was conducted via a 100-foot cord to two paddles held by one of the crew members. The electrical flow between these electrodes was controlled by a safety switch. For best results, the operator produced a one to two second pulsating current through the water between electrodes. The immobilized fish were collected by the other two members with hand nets. Occasionally, if a large number of fish were stunned, the circuit was kept

closed to facilitate collection of all the immobilized fish. Following each trip through the stream section, the fish collected were sorted by species, counted and weighed. Photographs of the fish were taken in a box which contained several measuring scales. This technique saved valuable field time, as measurement of the lengths of fish could be made from enlargements of these photographs in the laboratory. A total of 18,430 fish were captured at the ten stations.

A succession of electrofishing trips through a stream section yields a catch uniformly decreasing in size providing that the effort has remained uniform from trip to trip. It is important that sufficient time elapse between trips to allow the water to clear, since any factor operating to make shocking or collecting either more or less efficient would lead to biased population estimates.

Graph I illustrates the diminishing catch and method of population estimation for the hog sucker and river chub taken from the East Branch of the Humber River at Pine Grove. Observe that most of the river chub were taken in the first and second trips. Only two were taken in the third sample. If additional trips had been made, very few chub would have been captured. Extending a curve through the points until it meets the line on the graph representing an infinite number of trips, we find that the intersection occurs at about 47 fish. This is our population estimate of river chub in the Pine Grove stream section. The estimate of the number of hog suckers is 163. Actually, estimates are de-

Graph 1. An example of population estimation: the cumulative catch of two species taken in a section of the East Branch of the Humber River near Pine Grove.



termined mathematically in a manner which allows calculation of not only the estimated number or weight of fish but also the accuracy (or confidence limits) of the estimate. For example, we may say that the estimated number of river chub in the Pine Grove station was 47, but we can calculate that there were no more than 54 and no less than 41 throughout the station. This statement may be made with a 95 per cent chance of being correct.

Standing crops of fish, as well as farm and forest crops, are calculated on a per-acre basis. The standing crops of fish of the important species in several stations are shown in Graph 2.

The standing crops of stream fish varied from 15 to 220 pounds per acre. The average was 100 pounds per acre. Factors which appeared to affect the size of the standing crop include the number of species, water temperatures, number of pools and stream bottom type. For example, the average standing crop

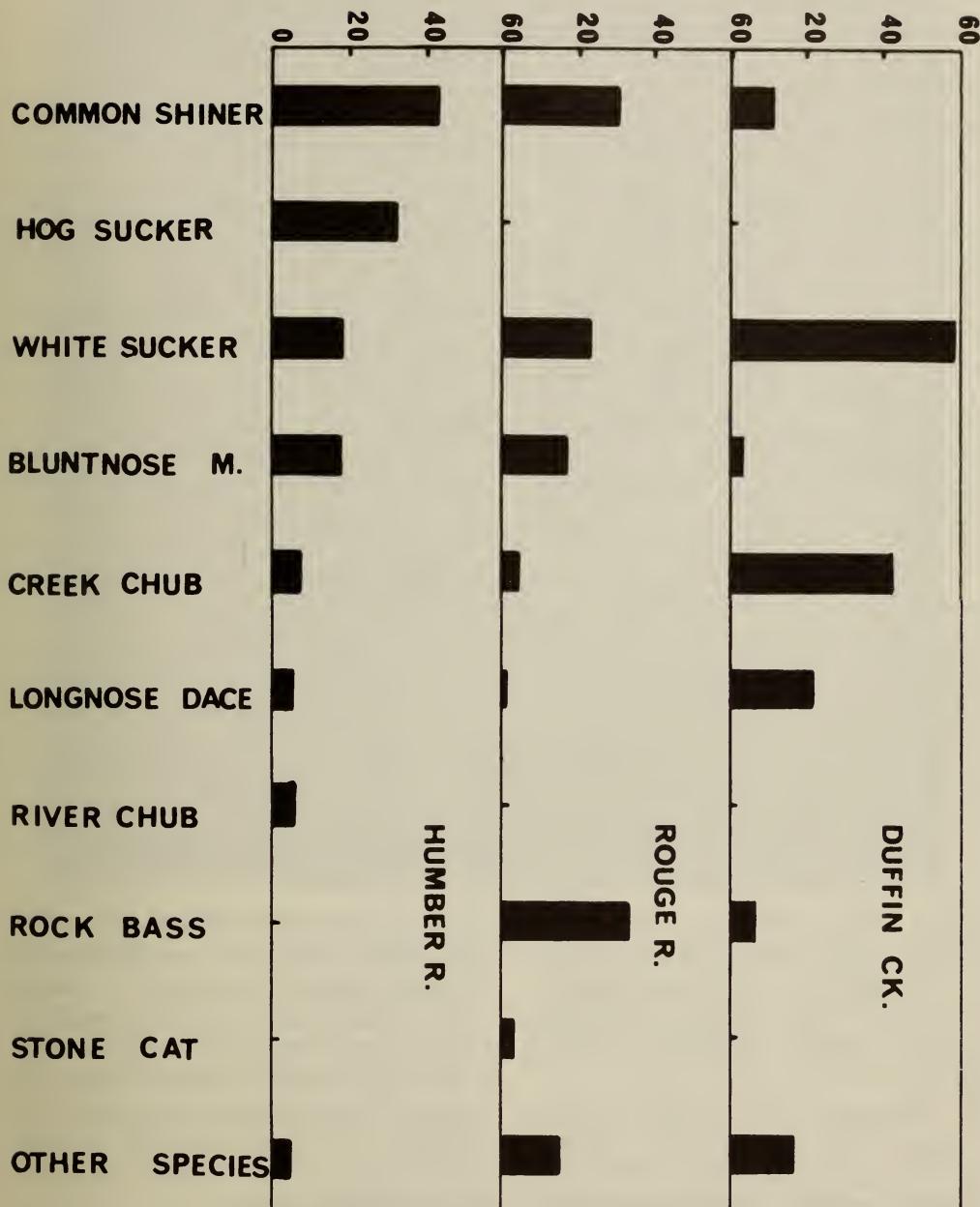
in two stations on the main stream of Duffin Creek was about 125 pounds per acre, while one cool, rapidly flowing tributary had 27 pounds per acre. The standing crop in the Humber River was lower than average in a cooler upstream station several miles north of Bolton. It was also lower at Claireville where much of the stream bottom is bedrock.

Coarse fish made up the bulk of the fish population at all stations. Very few trout were captured in these mainstream stations. The average standing crop of trout was less than one pound per acre. The maximum was five pounds of rainbow trout per acre in a Duffin Creek station. White suckers were quite abundant in most stations. The standing crop of this species ranged from five to 90 pounds per acre. Hog suckers were plentiful in the Humber River but not in the Rouge, Don or Duffin Creek. Creek chub were abundant in all stations, while the majority of stations showed an abundance of common shiners, blacknose dace and bluntnose minnows. Other fish, which appeared to have wide distribution but low standing crops, were the rainbow and Johnny darters and fathead minnow. Others, like the longnose dace, stone cat, pumpkinseed, river chub and rock bass, were restricted in distribution but abundant where they did occur. The



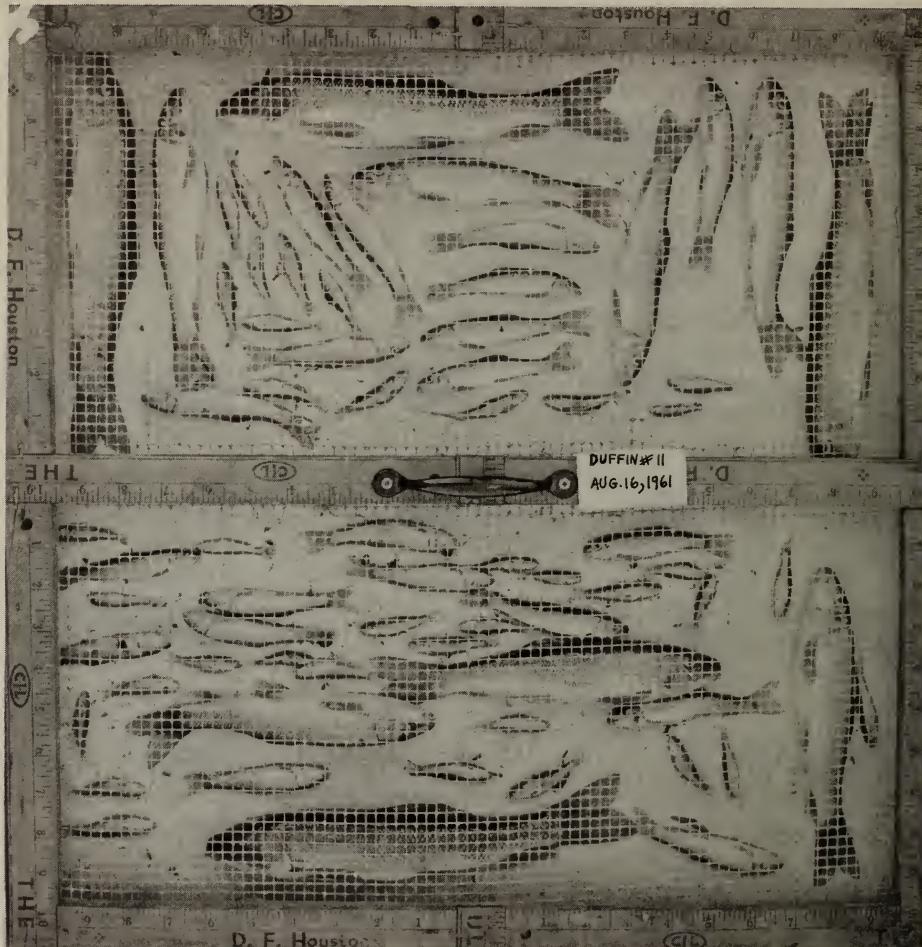
Electrofishing. Fish are stunned temporarily if they enter the field between the two electrodes held by the centre man; they are collected by dip nets.

STANDING CROP (POUNDS/ACRE)



Graph 2. Standing crops of the fish species taken from the West Branch of Duffin Creek near Green River, the Rouge River below Unionville, and the East Branch of the Humber River north of Woodbridge.

White suckers, photographed in water in the "fish-measuring box". Calipers are used to determine fish length by comparison with the closest rule.



fantail darter, rosy-face shiner and redside dace were both restricted in distribution and less abundant.

WHAT DO THESE ESTIMATES MEAN? Several conclusions may be drawn:

1. Mainstream reservoirs will not likely disrupt any valuable sport fisheries;
2. The populations which will develop in new reservoirs will consist of white suckers, common shiners, creek chub, rock bass and pumpkinseeds; therefore, it would appear advisable to eliminate certain of these populations before they expand in a new reservoir, and stock

species of fish more suitable for angling;

3. Stream reclamation and habitat manipulation should be attempted to eliminate coarse fish and encourage game fish; for example, streambank erosion control and shrub planting should reduce silt content and temperatures to place game species in a more favourable competitive position with species suited to warm, turbid waters.

The role of electrofishing in this and similar projects is a valuable one. To understand a fish population, we must examine it very closely. Electrofishing makes this possible.

LET'S HUNT PHEASANTS

by J.D. Roseborough
Game Management Biologist, Fish and Wildlife Branch

For the past three autumns in Ontario, over 3,000 hunters and almost 5,500 pheasants have been getting together in the great outdoors to test a new system which may be instrumental in improving pheasant hunting for approximately ten times that number of pheasant hunters throughout southern Ontario.

Pheasants, although not native to Ontario, have endeared themselves to thousands of southern Ontario hunters who see in the pheasant a game bird which challenges both the hunter's constitution and skills as well as the ability of the many breeds of hunting dogs used in the Province. Pheasants are by no means the most important species of game animal in Ontario. The ruffed grouse, the deer and the cottontail rabbit vie for the Number One spot as the most sought after game species. However, the pheasant does attract a large number of avid hunters whose only experience in game bird hunting, other than bagging a few mallards and black ducks, is restricted to two or three Saturdays during the yearly pheasant hunt.

Over \$50,000 worth of pheasants are distributed annually by the Department of Lands and Forests throughout southern Ontario to game and fish organizations, to Township Councils and to interested farmers who are anxious to have pheasant hunting in their areas. All pheasant distribution is concentrated in areas where pheasants survive naturally and where stocked birds have some chance of survival until the fall. The number of pheasants killed by hunters, (birds which had been stocked as seven week old "poults") has been most discouraging not only in southern

Ontario but also in all of the States of the Great Lakes region. Surveys in Ontario have indicated that the number of birds bagged by hunters is often less than five per cent but seldom more than 20 per cent of the number stocked. In recent years, experiments on planting adults prior to the opening of the season in mid-October have been encouraging. However, it has been found that, in order to harvest a high percentage of the adult pheasants stocked, it is necessary to have a high concentration of hunters in the area. Widespread releases of adult pheasants in October before the pheasant season is only slightly more efficient than the planting of poultts in the summer time.

To provide Ontario hunters with better quality pheasant hunting than that found throughout most of the pheasant range, and to study the effects of concentrating hunters as well as pheasants, an experimental program was initiated in 1961. Three small Provincial Parks, within one hundred miles of Toronto, were used for this pilot program. These were Presquile Provincial Park in Northumberland County, Darlington Provincial Park in Durham County near Oshawa and Sibbald Point Provincial Park in York County on Lake Simcoe. The areas available for hunting in each of these Provincial Parks were limited and did not exceed 300 acres. Nevertheless there was sufficient land and also staff available at these locations to operate a pheasant hunting unit on an experimental basis to evaluate the system itself, determine the acceptance of such a program by Ontario hunters and gain valuable experience in preparation for the operation of

much larger areas managed primarily for wildlife. In 1963, an additional pilot program was established at Earl Rowe Provincial Park near Alliston.

All the hunting units were operated on the same basis. A daily charge of \$5.00 per day for hunting was made so that the operating costs and some of the cost of the pheasants would be paid for by the hunters. Hunters were allowed to take a maximum of three birds of either sex. The hunting hours were between 9:00 a.m. and 5:00 p.m. The main reason for beginning at 9:00 a.m. was to accommodate hunters who had to come a long distance. These people would normally have to leave home before dawn to start hunting with those hunters who came from some local town or city if hunting began at 8:00 a.m. In addition, the staff on these areas could work a normal day if the hunting began at 9 and ended at 5 and licences were issued between 8 and 9 a.m.

On week days, hunters usually arrived about 8:00 or 8:30 a.m., presented their hunting licences to the officer in charge, and were issued with a permit to hunt on the area for that day. On week-ends, however, hunters had to arrive before 5 a.m.

Before leaving the area, each hunter reported his birds to the officer in charge and the birds were tagged to identify them in case the hunter was later checked by a conservation officer in an area in which the season was not open. All birds released were banded with numbered aluminum bands so that the field staff on the hunting unit were able to account for all of the birds released and all the birds bagged. Records on the number of birds seen and wounded or missed, the use of dogs and other information were kept for each hunter as he was leaving the area. The personnel, operating the units, in this way were able to gain an intimate know-

ledge of the daily activities of hunters as well as the daily activities of the birds which had been released.

The four areas used in 1963 vary in size from 200 to 400 acres. Approximately one hunter can be accommodated on 10 acres of land. As a result, restrictions were placed on the number of hunters at any one time. At Earl Rowe Park, thirty-five hunters were allowed on the unit each day while at the other three areas, only twenty-five hunters were admitted. This density of hunters is a little greater than is desirable; nevertheless, hunters tended to space themselves fairly well throughout the area. Occasionally, congestion did occur when a rather keen but poorly trained dog moved in with a group of hunters, doing most of the shooting, and there was always the possibility that pheasants flushed by one group of hunters ended up passing over another group and being bagged.

In 1961, before the program became well known, 379 hunters made use of the three areas. The number almost tripled in 1962 as more people learned about this new type of hunting and its possibilities. In 1963, the same increase occurred, and those hunters who had been turned away in the previous years at Sibbald Point Park found good opportunities at the new Earl Rowe Pheasant Hunting Area. The increase in the use of these areas by hunters has been substantial and indicates the popularity of this sport. The table showing the results also indicates that large returns of stocked birds are possible when the hunting is done by a high concentration of people. It also indicates that, although the number of hunters may be increased on the area, the number of pheasants to be released does not have to be increased correspondingly to maintain the bag since the percentage of birds bagged is affected so



Hunters line up in their cars at a Provincial Park gate to obtain a licence to hunt. Cars are parked at the gate during the hunt. Photo by T. Jenkins.



Adult pheasants are banded with numbered aluminum bands before they are released in the hunting area. Photo by T. Jenkins.

Table I

PHEASANT HUNTING UNITS

	<u>Year</u>	<u>No. of Hunters</u>	<u>Pheasants Released</u>	<u>Pheasants Bagged</u>	<u>Pheasants Per Hunter</u>	<u>Per Cent of released birds bagged</u>
Darlington	1961	171	408	318	1.9	75
	1962	385	690	591	1.5	85
	1963	590	985	910	1.5	92
Presqu'ile	1961	74	185	162	2.2	88
	1962	211	380	315	1.5	83
	1963	221	479	386	1.8	81
Sibbald's Point	1961	134	210	132	0.98	63
	1962	438	700	569	1.3	81
	1963	461	760	665	1.4	87
Earl Rowe	1963	400	694	570	1.4	82
ALL AREAS	1961	379	803	612	1.6	76
	1962	1034	1770	1475	1.4	83
	1963	1672	2918	2531	1.5	87
Percentage Increase	1961-1962	173%	120%	141%		
	1962-1963	61%	65%	72%		

greatly by the intensity of hunting. For example, between 1961 and 1962, although the number of hunters almost tripled, only twice the number of pheasants were required to maintain the average bag at about one and one-half birds.

The popularity of these hunting areas has increased so that in 1963 approximately 150 hunters had to be turned away because they could not be accommodated. This occurred most frequently on Saturday which was the most popular day of the week and on which all the hunting units were generally filled to capacity. On some Saturdays, more than 25 hunters were accommodated when some hunters got their bag early in the morning and left the area before noon.

Unfortunately, lineups at the various hunting units have developed and the hunters arrive as early as Friday evening. In Darlington and Sibbald Point on Saturday, unless hunters were lined up at the offices by 6:00 a.m. at the latest, there was little opportunity to find a place on the unit. Such lineups are undesirable but unavoidable when the units are small and the number of hunters must be restricted.

The pheasant units were especially appreciated by hunters with bird dogs. Nowhere in the Province, except perhaps on Pelee Island, would anyone see as large a concentration of pointers, setters, spaniels and labradors. A high percentage of the hunters had dogs and, although many found that dogs were not entirely necessary to bag a bird,



Excitement reigns for both hunter and dog when a cock pheasant cackles---then flushes wide. Photo by T. Jenkins.



A major part of the enjoyment is shared by the hunter's dog (who gets in free). Photo by T. Jenkins.



Proud hunters check out; the dog is proud, too, but tired. Photo by T. Jenkins.

better bags were obtained by those with hunting dogs.

There was some concern among a few sportsmen before they used these areas that this type of hunting might be excessively artificial. Most hunters and especially those who were skunked after a full day's hunting agreed that this was not the case. The staff distributed birds throughout the hunting area in the densest possible cover. Many hunters found that hunting on

the units was almost as difficult as hunting in adjacent townships but the lure that pheasants were present on the area kept hunters going from early morning until late in the afternoon. The knowledge that the pheasants were there often kept hunters working one piece of cover after another without any thought of lunch or any realization of the time.

These units have operated now for three years and have certainly provided

better quality hunting than the average for the Province. The average bag of pheasants across southern Ontario is about one bird per two hunters per day. On the pheasant hunting units, the objective was to provide about three times this average. After the initial year, it was possible to maintain the daily bag of pheasants on all four areas so that two hunters were able to bag three pheasants per day during most of the season.

Another aim of the project was to demonstrate that a high percentage of stocked pheasants can be taken through the proper placement of birds and by concentrating hunters. This has been shown on these areas for the past three years since between eighty and ninety per cent of the stocked birds have been recovered.

Although adult birds used in the planting program on these areas are worth at least twice as much as poult which are placed out in the summer, it is obviously good business since al-

most four times as many pheasants, stocked as adults, are taken by hunters. As a result, the cost per bird bagged planted in this way is about half the cost of poult released earlier.

Our experience, therefore, has been most satisfying. We can regulate the bag of pheasants. We can provide better quality hunting for an additional cost. We can recover a very high percentage of birds stocked. Sportsmen are willing to pay for high quality pheasant hunting in Ontario. Hunters now recognize that this type of hunting is a challenge and that the artificial aspect of it can be minimized. Finally, of course, we have shown that there is a demand for such management in southern Ontario which has certainly not been satisfied on the four areas presently operated. There is no doubt that a small number of very large hunting units can provide more opportunities for more hunters in a much more satisfactory setting.



The end of a day's successful hunt---and time for a bit of lunch which was forgotten earlier in the day's excitement. Photo by T. Jenkins.

WILDLIFE LETTER BOX

by C.H.D. Clarke
Chief, Fish and Wildlife Branch

Not long ago, the Canadian Wildlife Service, of the Department of Northern Affairs and National Resources at Ottawa, circulated a questionnaire among Ontario licensed hunters. The questionnaire was neatly set up to evoke replies that could be fed into computers, which in turn would come out with a few simple, but undoubtedly, facts. Although a questionnaire of this type is hardly the sort of thing to cause old men to see visions, and young men to dream dreams, a small number of hunters did write out some questions and comments in longhand.

This material, spewed out by the computer, may or may not have been answered by the Canadian Wildlife Service. Some of it came our way at a late date and should, we feel, be answered though at this stage it is anonymous and cannot be answered privately. Our style probably owes more to the late Dorothy Dix than to Miss Ann Landers, but we hope the tongue is neither everted nor laterally displaced into the cheek.

Dear Sirs:

I have been a hunter and sportsman since I was sixteen years old, and sure enjoyed it, but in late years it seems to me there aren't many sportsmen hunting.

There are people who lease Crown land, erect a few no trespassing signs for NO hunting, hunt the land themselves with their friends, also take other Crown land with hunting parties. Also I feel there is weakness in issuing hunting licences, most young people hunting today shoot at anything in or out of season. Also damage people's property, meaning boats and cottages, also shoot at sound and look afterwards. These things I don't believe in.

I hunt every year for birds, ducks and deer, with the required licences, and the last 5 years have got no deer and only 3 ducks plus 4 grouse. I will not trespass or shoot from cars or after and before sun up. These things are being done plenty.

Yours truly,
Hamilton, Ontario.

Dear Hamilton:

There is some truth in everything

you say, but you have a negative slant that isn't going to help much. Spit out the butter and phone the Department of Lands and Forests, or better still, join a Fish and Game Club and make your voice heard. Incidentally, if you see Crown land leased for private hunting, you can bet that the lease goes back into the last century and would take legislation to break.

Dear Sirs:

Received your card and am forwarding the same now.

I have hunted ducks for some years in the Hamilton Marsh when younger and now I hunt and fish at Mud Lake near Orillia. We had a fine rice-filled lake until last year when the rice did not grow. I think the carp and the high water ruined it.

The lake also has wild celery and this feeds the later ducks, bluebills mostly.

Yours truly,
Dundas, Ontario.

Dear Dundas:

We hope you are right about the high water because in that case it will

probably grow again. Nowadays the drainage into all sorts of lakes is so rich that some water plants, including algae, grow better than ever before. In due course this rich growth all falls to the bottom and has to rot, and in the rotting process the oxygen is all used up. This is not good for plants like wild rice, nor for the better types of fish.

Dear Sirs:

I would like to see a law passed to govern the duck hunter who has no means of retrieving his birds. My neighbour and I between us keep 4 Labradors and so many times have had men ask us to send one of our dogs to get his birds. In my opinion he has no business shooting the birds in the first place. In one conversation I had with a man he and four other men were hunting a spot where it was very boggy and using a boat was impossible. They shot down 12 ducks and were able to get only 3 of these birds. I know these people and I can believe that what they say is true. They will not keep a boat much less a dog. Due to the decrease in ducks our limit has been cut down. I think that if there were something done about this type of hunter it would help a great deal to bring back the duck population. I might add that as long as I have shot ducks with my dogs (and pheasant) I have never lost a bird. Perhaps if there were a law stating that the bird hunter must have some visible means of retrieving same, the true sportsman would have more game to shoot at and keep these killers and wasters out. Hoping you share my views and can start something going, I remain,

Yours truly,
Brampton, Ontario.

Dear Brampton:

You are perfectly right but no one

has ever been able to enforce sportsmanship by law. Plenty of hunters cannot keep a dog, and there are places where they just should not hunt. They wouldn't do it if they knew that their fellow-hunters really condemned them for the waste.

Dear Sirs:

There was one banded bird that I shot. I returned the tag to the Dept. at Maple, Ont. This bird was tagged in Washington, D.C. I was hoping that I would hear from the Dept. at Maple regarding this tag. But I haven't as yet. Will I hear from them later? Also, I would like it very much if I could get a calendar from the Canadian Wildlife Service. Hope I can be of help in the future.

Yours truly,
Toronto, Ontario.

Dear Toronto:

Bands received by our offices are sent to the U.S. Fish and Wildlife Service, Washington, D.C., and they reply directly to you. We hope you have the information you want by now. You can turn in a band to us, but you will get a report from Washington.

Dear Sirs:

We received your card concerning the study of bird life and the results of our hunting ventures which were very unrewarding this year.

However, I am a teacher and I was wondering if you could supply me with any pictures of birds or animal life which I could use in my class-room. Any size, the larger the better of any type would be appreciated.

Yours truly,
Chatham, Ontario.

Dear Chatham:

This sort of thing comes in every day from teachers and pupils. The material that is available, from museums,

from private sources, and some from us, is obviously not quite what teachers want. You could, of course, invest in a good bird book, but obviously you wouldn't want to use a book for cutting and pasting. It costs real money to make a big printing of anything in colour, and teachers are going to have to make up their minds as to exactly what they want and hold out for it.

Dear Sirs:

I am sorry I lost or misplaced the the original card you sent me.

I like to walk through the bush in the fall and take a licence so I can carry a gun. I only hunt partridge as an excuse to go for a walk. I would hunt or go for my walks oftener if deer season wasn't so early. Any man who goes into the bush during deer season doesn't value his life too much. The leaves don't generally fall till the last week in October so seeing game is extremely difficult.

I recommend deer season to start November 1st, the bird seasons seem reasonable.

Respectfully yours,
Port Arthur.

Dear Port:

Sorry, but the record shows that our deer hunters have no redder hands than other hunters.

Dear Sirs:

Being a guide I lost track of the birds I got in the season---partridge only. I did not send my card for that reason. I am sure I got over 100 birds all together, that is, in Sisk, Field and Bastedo Townships. Being a guide for the last 10 years, I would like to make a suggestion. Partridge season should not open before October 1st instead of September 15. Reason for this is. I feel that killing partridge before October 1st is a waste of game as they are too

small at that time, only the size of an egg. Second reason is, until October 1st they are still all in a flock which is too easy for a hunter to destroy the whole bunch of them only to get very very little meat, as they are too young at that time. That is true. I am only trying to protect the game. Thank you.

Field, Ontario.

Dear Field:

Some of our men, who thought the same as you, ran a series of weights on ruffed grouse through August and September. Except for the odd brood of squeakers---and these have been recorded even in December in Ontario---after September 1st you could not be sure of separating adults from young.

Dear Sirs:

I must first apologize for the mis-laying of the former card which was sent to me from the Canadian Wildlife Service in Ottawa.

I would also like to know if you could tell me the type of occupation that one could get with a grade 12 education and also the jobs one could get with grade 13, that is, jobs concerning this wildlife service. I am now trying grade 13 but not too sure whether I will pass.

Yours truly,
Priceville, Ontario.

Dear Priceville:

Boy, you'd better pass! The wildlife field is a very restricted one for employment, and at the same time very attractive to boys like you, and there may be more candidates than jobs. With Grade 13 you can take a wildlife course in university. Do it if you can. If you can't, Grade 12 will get you into the Ontario Forest Ranger School at Dorset, but Grade 13 will make your entry doubly sure. Non-technical and sub-technical jobs in Ontario are filled from among the ranks of Ranger School



Duck hunter await the morning flight. Photo by K.M. Andresen.

graduates. Get your application in early, because there is never room for everybody who wants to go.

Dear Sirs:

I thought I would drop you a line to tell you of a very amazing thing I saw. I have a cottage on Hay Bay very close to a farm.

On this farm is a white goose or duck. Well anyway, this goose mothered 7 baby black ducks from June to October, and it was a very thrilling sight to watch. I kept track of her all summer to late fall, and then the 7 little ducks which got fairly big left her. They used to play up and down the shoreline all summer.

Yours truly,
Kingston, Ontario.

Dear Kingston:

Many people will envy you this

experience. Think of all the kids who don't even know what it is to hear a rooster crow.

Gentlemen:

I am keen to get a little snipe or duck or woodcock shooting. Would it be worth my while next fall to go up to Manitoulin Island? I have never been there and don't know what the chances are to get someplace to stay, and a decent guide to show me where to go for 3 or 4 days' hunt.

Yours faithfully,
Toronto, Ontario.

Dear Toronto:

This is an easy one. Manitoulin is a first-class upland game area, and one of the best developed tourist areas in the Province. There are camps and motels open into the fall, eager to serve bird-shooters.

Gentlemen:

You will find the enclosed form #15462 enclosed "Blank".

The reasons for this are as follows, - It is the opinion of this writer as well as many others that the fish and game laws, regulations and in many cases stocking programs are best described as, incompetent, thoughtless and thoroughly disgusting. Therefore, I will have no part in anything which tends to help in the encouragement of a land owner and rich man's monopoly of our natural resources. If those in the responsible offices are blind, the rest of us sportsmen are not.

Sincerely,
Oshawa, Ontario.

Dear Oshawa:

You can't please all of the people all of the time. We used to have a veteran officer who said that it was not the sound of the word "law" that made people yelp, it was the pinch. We think maybe you are different. It has gotten under our skin, too, to see the places we once hunted freely, and with no injury to anyone, placarded as if for our special benefit. However, there has been no change in the law, so far as property-owners' rights are concerned. It's just that more owners are exercising them. The Province now has a recreational land acquisition program, and is authorized to acquire, lease, or enter into agreements for the management of, lands for fisheries and wildlife, including public hunting. Do you see any opportunities?

Dear Sirs:

Re: Suggestions toward hunting regulations.

In reply to your request my suggestions are as follows: 1. The fee for a gun licence should be raised to

\$5.00. The additional money could well be used to enforce hunting regulations more strictly and possibly re-stocking of game. A provision should be made to save those interested in target shooting only from paying the increased fee.

2. County licences should be eliminated. Instead there should be a provincial licence covering all small game at a price of approximately \$10-12. This way the revenues would go to one source and would probably be more efficiently utilized. Also a county licence is still subject to the convictions of the individual owner of any property, since he is free to limit any hunting activity upon such property. A right which can not be denied but on the other hand, the county licence in itself grants very little.

Yours truly,
Toronto, Ontario.

Dear Toronto:

A very casual glimpse into my crystal ball tells me that you are not long away from some country where the problems caused by the impact of high population, intensive land use and industrialization, on recreational hunting, arose long before they did here. Give us a little time. Our readers are not interested in the details, but you know that it didn't happen overnight in the old countries. Already we have compulsory testing of new hunters, designated public hunting and fishing areas, a recreational land acquisition program, and a few other things one might mention, all, I'll bet, since you landed here. Your attitude has probably helped. Just you keep pounding the table, and saying that good hunting can never come unless people work for it, and pay for it, and we may do better than the old country. Some things they have, we can do without, so we might get farther faster.



Successful hunters bring in their trophy. Photo by K.M. Andresen.

